

Rabies Pre-exposure Prophylaxis Vote

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Advisory Committee on Immunization Practices

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Updated table with rabies pre-exposure prophylaxis (PrEP) recommendations

Risk category	Nature of Risk	Typical Population	Disease Biogeography ¹	Primary Immunogenicity PrEP	Long-term immunogenicity
#1: Elevated risk for unrecognized and recognized exposures including unusual / high risk exposures (e.g., aerosol exposures and high concentration exposures)	Risk of virus exposure is continuous. Exposure is often in high concentrations, may go unrecognized, and can be unusual (e.g., aerosolized virus).	Laboratory personnel working with live rabies virus in research, diagnostic, or vaccine production capacities (e.g., necropsy of suspect rabid animal or working with rabies virus cultures)	Laboratory	IM [0, 7 days]	Titers every 6 months (booster if titer <0.5 IU/mL)
#2: Elevated risk of unrecognized and recognized exposures	Risk of virus exposure is episodic. Exposure typically recognized but could be unrecognized. Unusual exposures do not occur	Persons who frequently handle bats or at frequent risk for <u>coming into contact with bats</u> because of entry into high density bat environments (e.g., bat biologist)	All geographic regions where bats are a reservoir for rabies ²	IM [0, 7 days]	Titers every 2 years (booster if titer <0.5 IU/mL)
#3: Elevated risk of recognized exposures	Risk of virus exposure greater than population at large. Exposure is almost always a recognized one.	Persons who work with animals <ul style="list-style-type: none"> Animal care professionals (e.g., veterinarians, technicians, animal control officers) Others who repeatedly handle terrestrial reservoir species (e.g., wildlife biologists, rehabilitators, and trappers) Spelunkers Veterinary students Short-term / volunteer hands-on animal care workers where increased risk is expected for short time periods* 	All geographic regions where terrestrial ³ and non-terrestrial mammals are reservoirs for rabies	IM [0, 7 days]	Titer once at 1-3 years (booster if titer <0.5 IU/mL) OR Booster no sooner than day 21 and no later than year 3.
		Travelers who will be performing activities (e.g., occupational or recreational) that put them at increased risk for exposure to rabid dogs and may have difficulty getting access to safe PEP (e.g., in rural area). Children may receive PrEP depending on the country to which they will travel (see CDC Traveler's Health destination pages)	Geographic regions internationally with canine rabies		
#4: Low risk of exposure / (i.e., general population)	Risk of virus exposure is uncommon. Bite or non-bite exposure	U.S. population at large	Nationwide	<ul style="list-style-type: none"> No pre-exposure prophylaxis No serologic monitoring 	n/a

¹For questions about the disease biogeography of the region where an exposure occurred, please contact your local or state health department

²Bats are reservoirs for rabies in all US states except Hawaii

³Terrestrial mammals are non-bat species (e.g., raccoons, skunks, livestock)

Implications of proposed changes

Risk group	Population	Primary immunogenicity	Implications	Long-term immunogenicity	Implications
#1	Research laboratorians	IM [0, 7 days]	Fewer vaccine doses but equivalent efficacy	Titer check ever 6 months ¹	No change
	Diagnostic laboratorians			Titer every 6 months	Makes sense to consider all laboratorians equally
#2	Bat biologists			Titer check every 2 years ²	No change
#3	Animal care professionals in terrestrial rabies regions	IM [0, 7 days]	Fewer vaccine doses but equivalent efficacy	Titer once (1-3 years after primary series)	Fewer vaccine doses and/or fewer titer checks
	Animal care professionals in non-terrestrial rabies regions, students, spelunkers, persistent travelers			OR Booster no sooner than day 21 and no later than year 3	Same number of vaccine doses OR instead of 3 rd vaccine, a titer
	Short-term animal care professionals and persons without sustained risk for rabies				No additional vaccine and no titers

Recommendation

ACIP recommends a 2-dose [0, 7 days] intramuscular rabies vaccine series in persons for whom rabies vaccine pre-exposure prophylaxis (PrEP) is indicated

Recommendation

ACIP recommends an intramuscular booster dose of rabies vaccine, as an alternative to a titer check, no sooner than day 21 but no later than 3 years after the 2-dose PrEP series for those who have sustained and elevated risk for only recognized rabies exposures (i.e., those in risk category #3 of rabies PrEP recommendations table).

For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Reminder: proposed changes

	Primary immunogenicity	Long-term immunogenicity
#1 risk group (i.e., laboratorians)	IM [0, 7 days]	Titers every 6 months after primary series
#2 risk group (i.e., persons who handle bats or enter high density bat environments)	IM [0, 7 days]	Titers every 2 years after primary series
#3 risk group (i.e., veterinarians, vet assistants, animal handlers, vet students, travelers etc.)	IM [0, 7 days]	Titer once at 2 years after primary series OR Booster once no sooner than day 21 and no later than 3 years ^t

Highlighted: Proposed changes to 2008 ACIP recommendations

Red box: Today's votes